UNITED STATES PATENT OFFICE.

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METHOD OF SELVAGE-SEWING.

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To all whom it may concern:

Be it known that I, HELEN A. BLANCHARD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Methods of Selvage-Sewing, of which the following is a specification.

My invention relates to a method of selvage sewing adapted for joining together the edges of selvage knit-goods, but it may be used to advantage with other kinds of fabric and for ornamental purposes; and the invention consists, essentially, in the employment of heat adjacent the point of sewing selvage knitted goods for the purpose of de-curling or straightening out the curl which is present along the edge of such goods and which prevents the formation of a smooth, flat seam, but results in a seam more or less bulky and unsightly, as well as the formation of a distinct rib which, in the case of hosiery and undergarments, often proves an objection to the wearer.

My invention further consists of the method which I will hereinafter describe and claim.

In the accompanying drawings I show one embodiment of mechanism whereby my method may be successfully carried out and wherein—

Figure 1 is a plan view of the work-plate of a sewing machine, showing one embodiment of apparatus for carrying out my process. Fig. 2 is a sectional view on the line X—X of Fig. 1.

It is recognized by the manufacturers of selvage knitted goods that the present day machinery is imperfect to the extent that it does not produce a sewed seam of smoothness and of little bulk. Also, that the thread of such goods is often drawn too tight and after a stocking or hose, for instance, is worn, the thread breaks, and the wearer discovers gaping holes, some of which extend substantially the length of the stocking. Much of the difficulty attending the formation of seams of knitted goods has been the inability to control the curl which is present in the edges, and in solving the question of selvage-sewing, I have in view the absolute control of the curling up of the goods along the edges and the automatic straightening out of the edges so that the curl disappears and the edge will lie flat upon the work-plate of the machine, at the point where the stitch-forming mechanism operates to unite the edge of the two pieces of fabric, say knit goods, the opposed or abutting edges of which are brought together in a manner well known in this art.

While various types of machines have been constructed with a view of curing the defect above noted and reducing the curl or kink in the edges of the goods as much as possible and thereby reducing the bulkiness of the formed seam, it is the experience of the users of the former machines that when a few stitches were taken, the knit goods would again curl and thus produce a bulky seam. Experiments along the line of selvage-sewing of knitted goods, made plain to me the great necessity that the seam should be soft, flat and smooth so that it could be sewed to the last stitch; or if any break was found in the knitting of the goods, the operator could take in a stitch or two and thus cover the defect. In the course of my experiments I discovered that the curl present in the edges of knitted goods could be controlled and taken out of the goods and the edge maintained in a smooth, flat, even condition, if heat was applied to the edge, and that if the stitch-forming function was performed immediately and before the heat lost its effect upon the edge of the knitted goods, the abutting edges of two pieces of fabric could be laid perfectly smooth and could be united by stitching while in this condition, thus producing a soft, flat seam of sightly appearance and one devoid of the projecting rib which usually results from the operation of the machines as at present used for forming a seam in knitted goods and the like. Accordingly, my process comprehends the application of heat to the edge of knitted goods in proximity to the stitch-forming mechanism whereby the heat acts upon the goods to take out the curl and to flatten the edge upon the work-plate, and to maintain the edge in a heated condition during the stitch-forming function, and before the edge has an opportunity to re-curl because of the absence of the heat. This will be better understood by reference to the accompanying drawings wherein I have illustrated sufficient of a standard sewing machine to make the invention understood.

In the drawings, A, represents the work-plate of the machine over which the fabric is fed in the usual manner, it being under-